User Manual

The Motorola Netopia® 2108-D9/N9 Gigabit Gateway

4 GigE ports, 802.11n Wi-Fi, optional HPNA

MOTOROLA

Safety Information

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IMPORTANT SAFETY INSTRUCTIONS – POWER SUPPLY INSTALLATION. Connect the power supply cord to the power jack on the Motorola Netopia® Gateway. Plug the power supply into an appropriate electrical outlet.

CAUTION: Depending on the power supply provided with the product, either the direct plug-in power supply blades, power supply cord plug or the appliance coupler serves as the mains power disconnect. It is important that the direct plug-in power supply, socket-outlet or appliance coupler be located so it is readily accessible.

TELECOMMUNICATION INSTALLATION. When using your telephone equipment, basic safety precautions should always be followed to reduce the risk of fire, electric shock and injury to persons, including the following:

- Do not use this product near water, for example, near a bathtub, wash bowl, kitchen sink or laundry tub, in a wet basement or near a swimming pool.
- Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electrical shock from lightning.
- Do not use the telephone to report a gas leak in the vicinity of the leak.

PRODUCT VENTILATION. The Motorola Netopia® Gateway is intended for use in a consumer's home. Ambient temperatures around this product should not exceed 104°F (40°C). It should not be used in locations exposed to outside heat radiation or trapping of its own heat. The product should have at least one inch of clearance on all sides except the bottom when properly installed and should not be placed inside tightly enclosed spaces unless proper ventilation is provided.

SAVE THESE INSTRUCTIONS

Motorola Part Number: 578175-001-00 revision b

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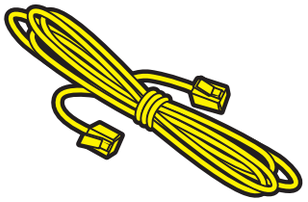
1 Checklist

Thank you for selecting the Motorola Netopia® 2108-D9 or -N9 Gigabit Ethernet Gateway. This guide will help you set up and configure your network.

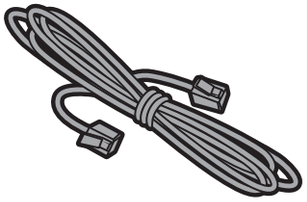
Check your package contents. It should contain the items shown here:

Motorola Gateway

User Manual

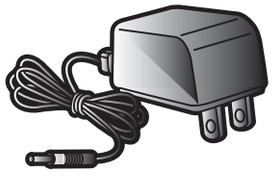


1 Yellow RJ-45 Ethernet Cable



1 Gray RJ-45 Ethernet Cable

Wallmounting Kit (2 screws + 2 anchors)



Power Supply

If you don't have everything, contact your supplier immediately.

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2 Connections

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1. **Select a suitable place on the network to install the Wireless Gateway.**

   You can stand it up in its stand; lay it flat on a desktop; or mount it on a wall using the included wall mounting kit hardware (see “Wall Mounting instructions (optional)” on page 15).

2. **Use standard Cat5 Ethernet cables to connect PCs to the LAN ports on the rear of the Wireless Gateway.**

   One is supplied with your Gateway (yellow cable).

3. **Connect the DSL or Cable modem to the gray WAN port on the Wireless Gateway.**

   Use the cable supplied with your DSL/Cable modem. If the cable is missing, a standard Cat5 Ethernet cable can be used.

4. **Connect the supplied power adapter to the Wireless Gateway.**

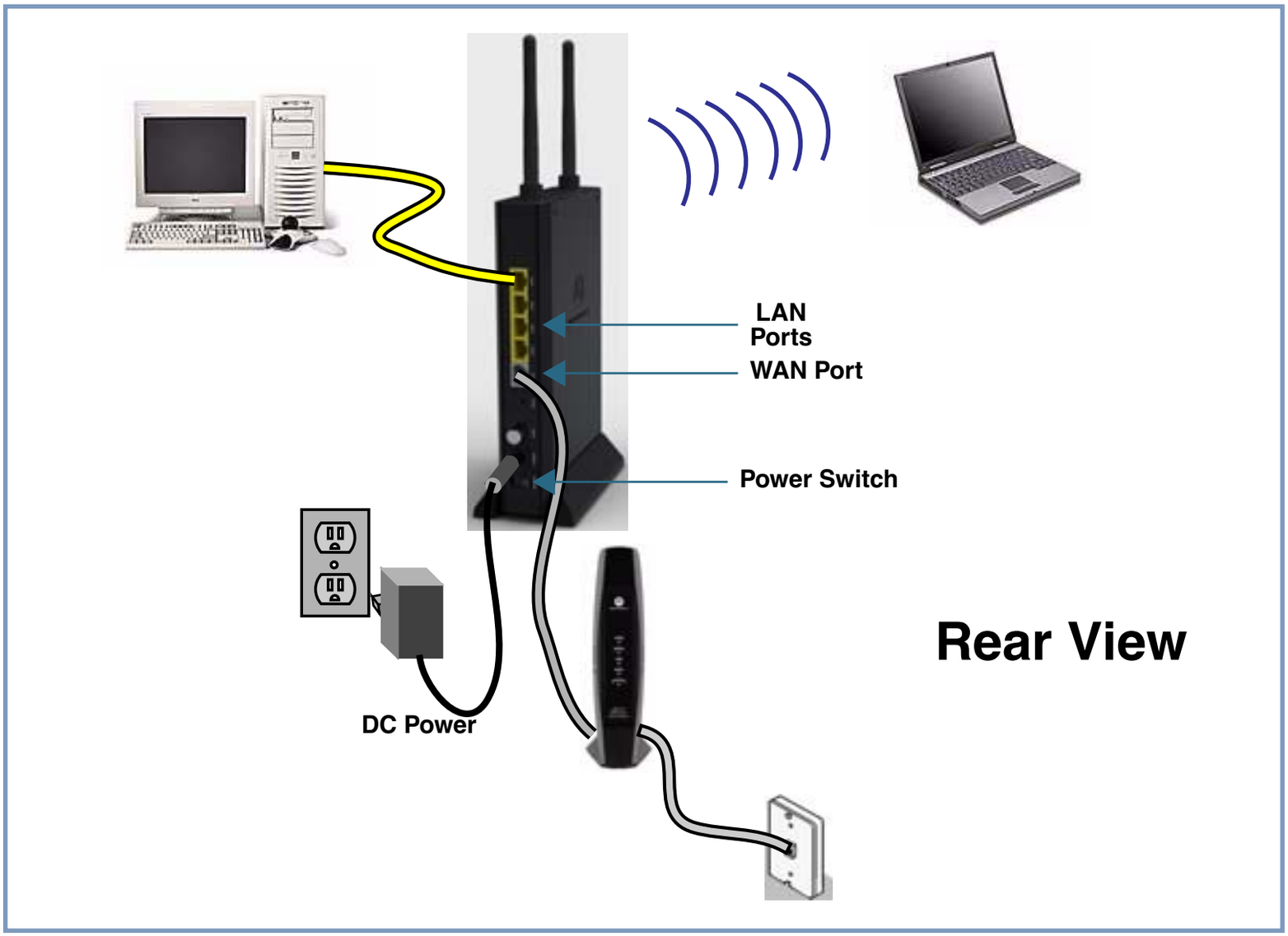
   Use only the power adapter provided. Using a different one may cause hardware damage. Turn the power ON with the ON/OFF Power Switch.

5. **Check the LEDs:**

   - The Power LED should be ON.
   - The LAN LED(s) that have a cable connected should be ON when the connected device is also on.
   - The Wireless LED should be ON only when a wireless client is connected to this Gateway.
   - (**2108-N9 HPNA model only**) The HPNA LED should be ON only when an HPNA device(s) is connected via coaxial cable.
   - The WAN LED should be ON when the WAN Port is connected via Cat5 cabling.

• The Internet LED may initially be OFF. After proper configuration, it should come ON

When all of your connections are made, your network may look like this:



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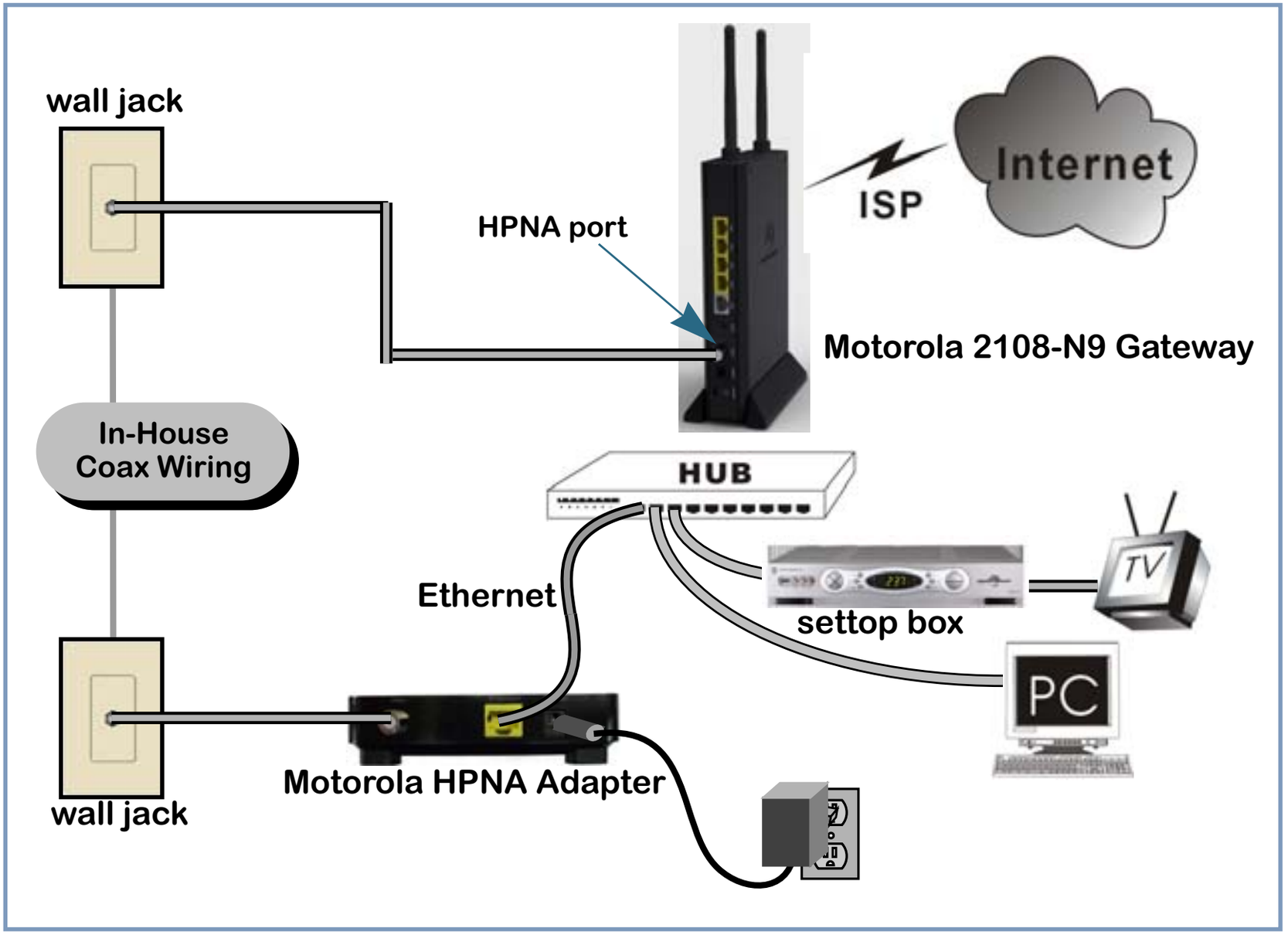
The figure below shows how to connect a Motorola 2108-N9 HPNA-enabled Gateway to a home coaxial cable network using a Motorola HPNA Adaptor (purchased separately). Follow the same steps to connect any Ethernet device such as a hub or printer to a coaxial cable network.



6. Enable Wireless devices.

In order to use the Access Point in the Wireless Gateway, other Wireless devices must use the same SSID and Wireless Security settings as the Wireless Gateway.

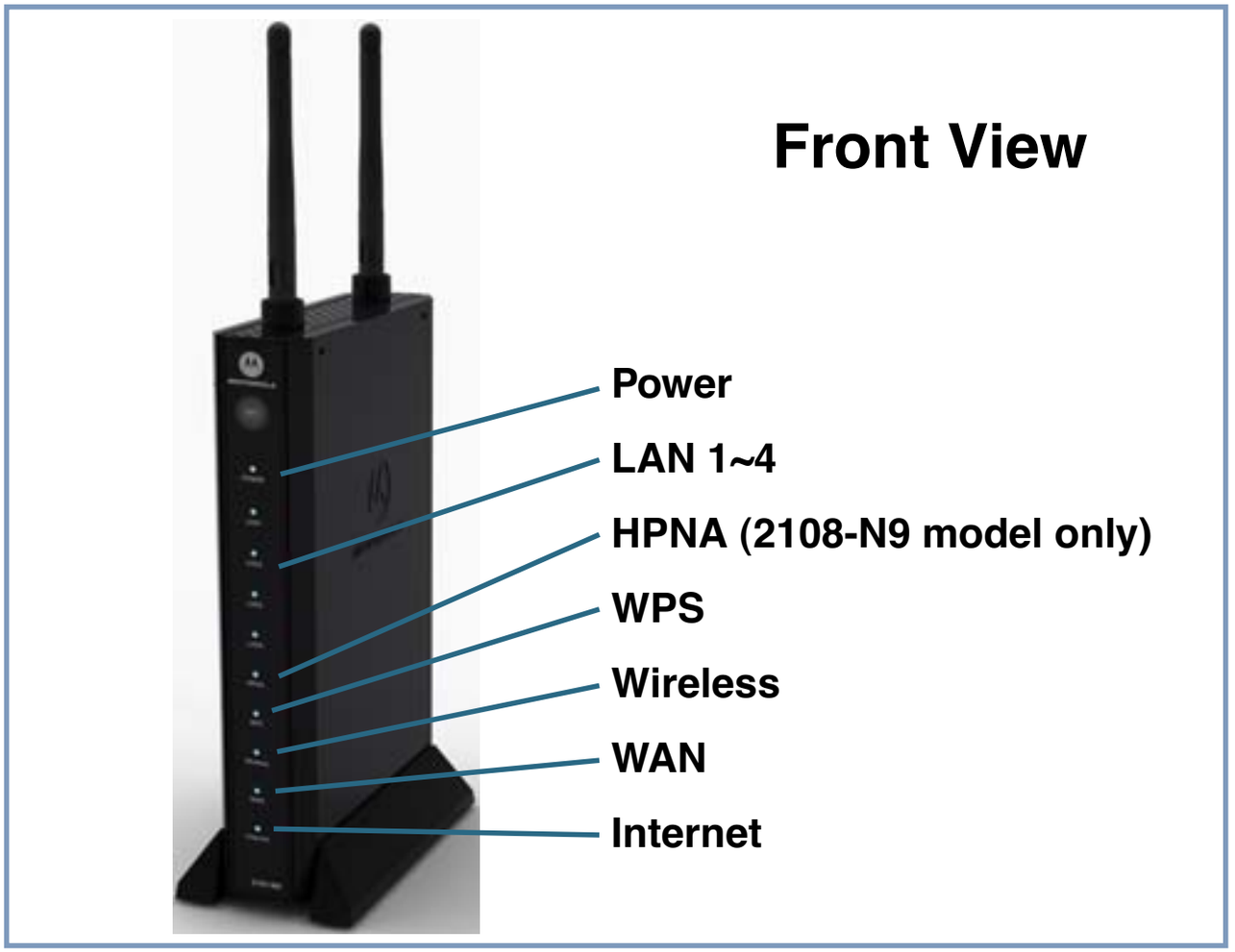
The Wireless Gateway's default settings are as follows.

Setting	Wireless Gateway
SSID	Default value: ***unique to your Gateway*** This may be changed on the Wireless screen, on the Wireless Gateway's main menu.
Wireless	Default Broadcast SSID: ***Enabled*** Default Security: ***WPA2-PSK (20 bytes key, unique to your gateway)*** Use the Wireless screen on the main menu to change this as required.

Ensure the Wireless Gateway and the other Wireless Stations are using the same settings.

- Use the Wireless setup screen to configure the Wireless Access Point in the Wireless Gateway.
- Configure the Wireless stations (PCs) using your normal method for configuring their Wireless interface.
- Wireless clients must also be set to use Infrastructure mode.

When all of your connections are complete, the status LEDs on the front of your Motorola Netopia® Gateway will light, in accordance with the following diagram:



LED Definition	
Power (Green, Red)	Off = Power Off Green = Power On Red = either power supply had become unstable or POST failed Blinking Red = Posting Blinking Green = FW upgrading

LED Definition	
Internet	Off = No IP connection Solid Green = IP connection exists Blinking Green = IP level traffic
WAN	Off = No connection Solid Green = Connection Blinking Green = traffic
LAN 1~4	Off = No connection Solid Green = Connection Blinking Green = traffic
HPNA (2108-N9 model only)	Off = No connection Solid Green = Connection Blinking Green = traffic
Wireless	Off = No connection Solid Green = Connection Blinking Green = traffic
WPS (Green, Yellow, Red)	Off = No action Solid Green = WPS Success Blinking Yellow = WPS in progress Blikng Red = WPS Error or session overlap

3 Device Configuration

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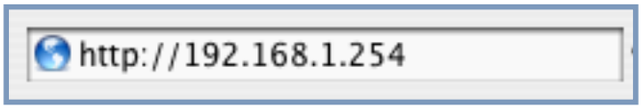
You can access the configuration pages at any time as follows:

1. **Run a Web browser, such as Firefox, Safari, or Microsoft Internet Explorer, and enter *http://192.168.1.254* in the URL Address text box.**



Press Return.

2. **When prompted, enter the Username and Password supplied by your ISP, if required.**

   Some ISPs do not require Username and Password. Refer to your ISP.

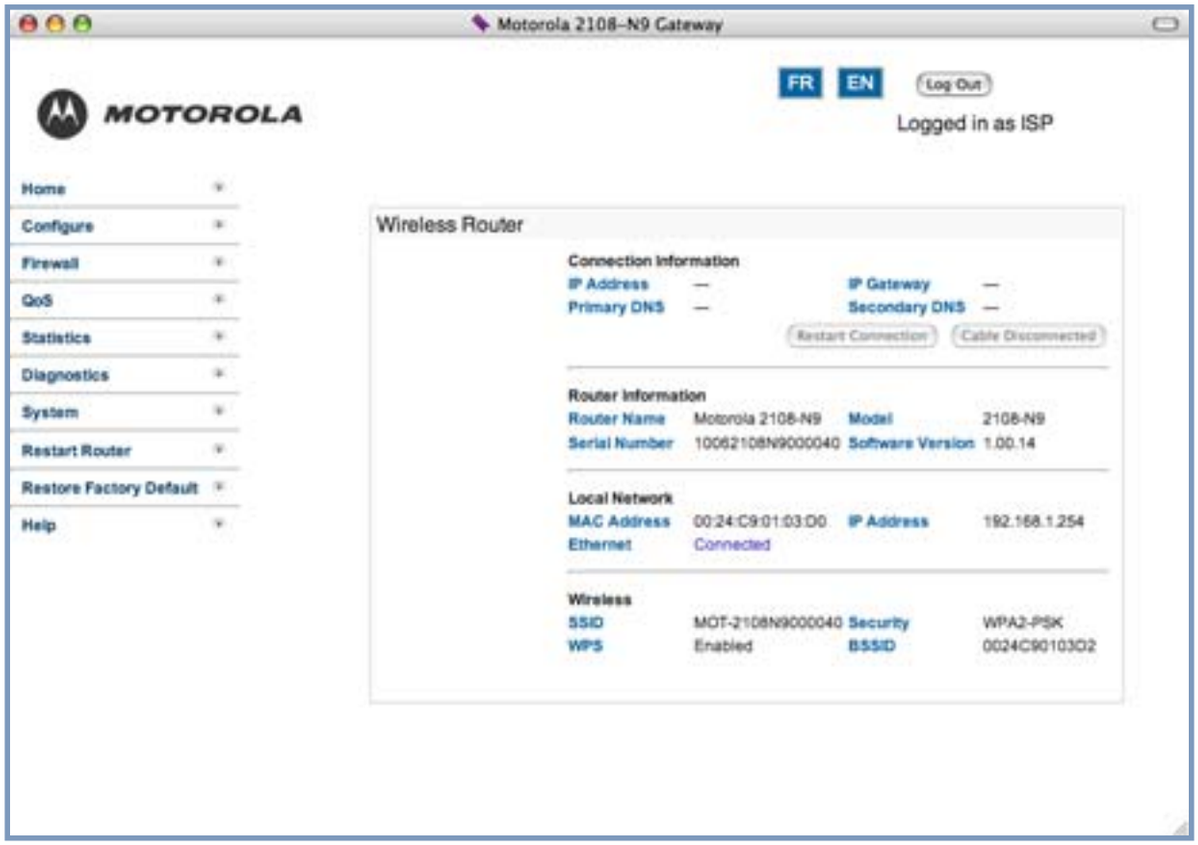
3. **Refer to the data from your ISP, and the table below, to ensure your choices are correct.**

Connection Type	Data Required
Dynamic IP Address (DHCP)	Usually, none.
Specified (Static) IP Address	IP Address allocated to you, and related information.
PPPoE	Login name and password.

Enter the information supplied by your Internet Service Provider.

4. Check your connection.

Click the HOME link at the top-left of your browser's GUI display. View this page to verify that an internet connection has been established. If the connection is not successful, check the data you entered and the cabling connected to Gateway's Ethernet ports.



Congratulations! Your connection is up and running and you should be able to browse the Internet by typing a URL address in your browser's Address text box or by selecting any of your favorite bookmarks.

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Client Configuration

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Your Gateway serves Dynamically-assigned IP addresses by default. Be sure to configure each computer connected to your Gateway to accept a Dynamically-assigned IP address, commonly referred to as DHCP.

Microsoft Windows:

Step 1. Navigate to the *TCP/IP Properties* Control Panel.

a. Windows 98, 2000, and ME versions follow a path like this:

Start menu -> ***Settings*** -> ***Control Panel*** -> ***Network*** (or ***Network and Dial-up Connections*** -> ***Local Area Connection*** -> ***Properties***) -> ***TCP/IP [your_network_card]*** or ***Internet Protocol [TCP/IP]*** -> ***Properties***

b. Windows XP follows a path like this:

Start menu -> ***Control Panel*** -> ***Network and Internet Connections*** -> ***Network Connections*** -> ***Local Area Connection*** -> ***Properties*** -> ***Internet Protocol [TCP/IP]*** -> ***Properties***

Step 2. Select Obtain an IP address automatically.

Step 3. Select Obtain DNS server address automatically, if available.

Step 4. Remove any previously configured Gateways, if available.

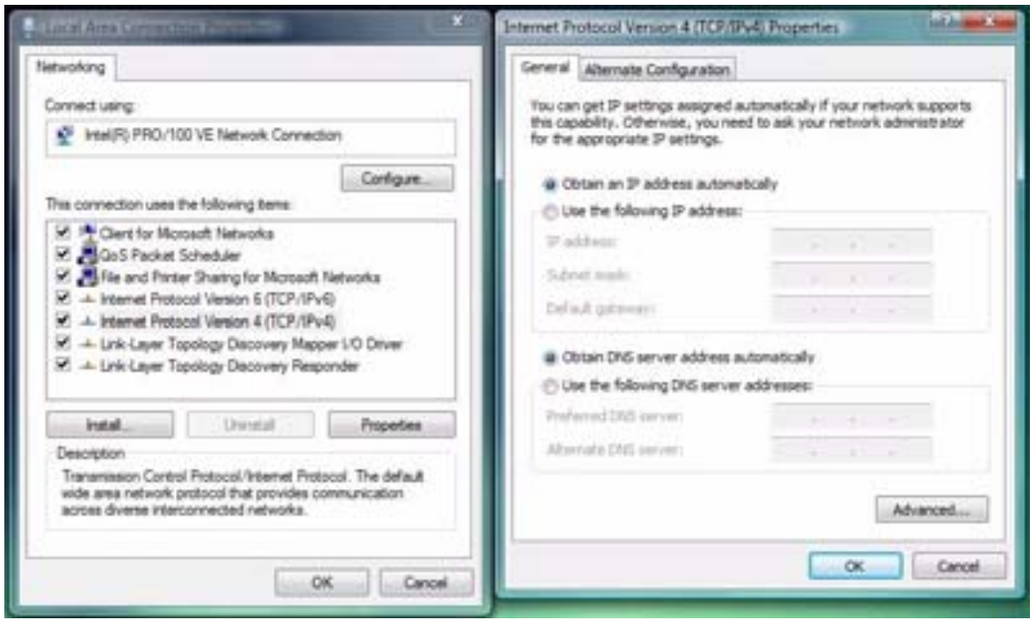
Step 5. OK the settings. Restart if prompted.

c. Windows Vista is set to obtain an IP address automatically by default. You may not need to configure it at all.

To check, open the **Networking** Control Panel and select **Internet Protocol Version 4 (TCP/IPv4)**. Click the **Properties** button.

The **Internet Protocol Version 4 (TCP/IPv4) Properties** window should appear as shown.

If not, select the radio buttons shown above, and click the **OK** button.


Networking
Connect using:
Intel(R) PRO/100 VE Network Connection
Configure...
This connection uses the following items:
Client for Microsoft Networks
QoS Packet Scheduler
File and Printer Sharing for Microsoft Networks
Internet Protocol Version 6 (TCP/IPv6)
Internet Protocol Version 4 (TCP/IPv4)
Link-Layer Topology Discovery Mapper I/O Driver
Link-Layer Topology Discovery Responder
Install...
Uninstall
Properties
Description
Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.
OK
Cancel
Internet Protocol Version 4 (TCP/IPv4) Properties
General
Alternate Configuration
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address:
Subnet mask:
Default gateway:
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server:
Alternate DNS server:
Advanced...
OK
Cancel

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Macintosh Mac OS 9 or Mac OS X:

Step 1. Access the TCP/IP or Network control panel.

a. Mac OS 9 follows a path like this:

Apple Menu -> ***Control Panels*** -> ***TCP/IP*** Control Panel

b. Mac OS X follows a path like this:

Apple Menu -> ***System Preferences*** -> ***Network***

Step 2. Select Built-in Ethernet

Step 3. Select Configure Using DHCP

Step 4. Close and Save, if prompted.

Support

Answers to many frequently asked product-related questions, as well as full product documentation with advanced configuration instructions, are also available on-line at:
http://broadband.motorola.com/consumers/support/default.asp?supportSection=blank

Note the serial number (***SN***:) of your Gateway. It is located on the label on the bottom of the Gateway below the model number. You will need the Gateway's serial number if you need to call for technical support.

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Wall Mounting instructions (optional)

1. **Hold a blank sheet of paper against the side of the Gateway with the mounting slots.**
2. **With a pen or pencil, mark the position of the mounting slots.**

   Use this sheet of paper as a wall mounting template.
3. **Place this template on the wall in the position the Gateway will be mounted.**

   It is recommended to mount the Gateway with the cable connections on the bottom.
4. **Mark the mounting holes.**

   If mounting on wood, drill holes for the supplied screws.
   If mounting on sheetrock, drill holes to accept the supplied sheetrock anchors.
5. **Leave screws extended about 0.15 inches from the wall.**
6. **Hang the Gateway on the screws.**

Recycling your Motorola Equipment

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When you see this symbol on a Motorola product, do not dispose of the product with residential or commercial waste.

Please do not dispose of this product with your residential or commercial waste. Some countries or regions, such as the European Union, have set up systems to collect and recycle electrical and electronic waste items. Contact your local authorities for information about practices established for your region.
If collection systems are not available, call Motorola Customer Service for assistance. Please visit ***http://www.motorola.com/recycle*** for instructions on recycling.

Recyclage pour le respect de l'environnement

Lorsque vous voyez ce symbole sur un produit Motorola, ne le jetez pas avec vos ordures ménagères ou vos rebuts d'entreprise.

Recyclage de votre équipement Motorola

Veuillez ne pas jeter ce produit avec vos ordures ménagères ou vos rebuts d'entreprise. Certains pays ou certaines régions comme l'Union Européenne ont mis en place des systèmes de collecte et de recyclage des produits électriques et électroniques mis au rebut. Veuillez contacter vos autorités locales pour vous informer des pratiques instaurées dans votre region. Si aucun système de collecte n'est disponible, veuillez appeler le Service clientèle de Motorola qui vous apportera son assistance.